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| 10/549,732 | 09/19/2005 | Matthew James Thomas | 05-739 | 1388 |
| 20306 7590 04/14/2009 MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606 | | | | |
| EXAMINER LLOYD, EMILY M | | | | |
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| 3736 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,732

Applicant(s)

THOMAS, MATTHEW JAMES

Examiner

EMILY M. LLOYD

Art Unit

3736

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to Applicant's 14 January 2009 amendment. The Examiner acknowledges Applicant's amendments to claims 1, 3, 7-9 and 11-18, the addition of claims 19 and 20, and the cancellation of claim 10. Currently, claims 1-9 and 11-20 are pending.

Claim Interpretation - 35 USC § 112 Sixth Paragraph

2. Claim 19 part c "means for processing signals" is interpreted as invoking 35 USC 112 sixth paragraph per MPEP 2181 I.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

In regards to claims 11-20, the specification fails to describe so as to enable one of ordinary skill in the art to make or use "processing means for processing signals received from the first and second sets of low-noise signal electrodes into digital signals suitable for application of a computer-implemented blind signal separation technique" (claim 19 part c) and "computer apparatus programmed to implement a blind signal separation technique suitable for separating stationary signals, to use the technique to: ... process digital signals" for the purposes of claim 19 part d. The broadest interpretation of the words "processing means" and "computer apparatus programmed to implement" in light of the specification is software (see [0033] of Applicant's Patent Publication, also a "computer apparatus programmed to implement" requires a

computer program/software). The Applicant has not disclosed in the specification via computer code, flow chart, or algorithm how to make said software. As such one of ordinary skill in the art would not know how to make or use the invention.

In regards to claims 1-9, the specification fails to describe so as to enable one of ordinary skill in the art to make or use software/"techniques" claimed. The broadest interpretation of the word "technique" in light of the specification is software (see [0025], [0027], [0029] and [0033] of Applicant's Patent Publication). The Applicant has not disclosed in the specification via computer code, flow chart, or algorithm how to make said software/techniques. As such one of ordinary skill in the art would not know how to make or use the invention.

The Applicant is invited to explain, to make the record clear, reasons that the rejection under 35 U.S.C. 112, first paragraph, does not apply.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 and 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: monitoring electrical muscular activity (claim 1).

7. Claims 11-20 are indefinite because it is unclear whether "processing means" is directed to hardware, software or a combination thereof. This is problematic because software, algorithms, program logic, etc. lack structure. Limitations lacking structure in an apparatus type claim(s) are not given patentable weight.
8. Claims 11-20 are further indefinite because it is unclear if the "means for processing" (claim 19 part c) is the same as the processor for the "computer apparatus" (claim 19 part d), or if these are separate pieces of hardware, software or a combination thereof.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In particular, claims 1-9 are drawn to a process. Under 35 U.S.C. §101 a process must 1) be tied to another statutory class (such as a particular apparatus) or 2) transform underlying subject matter (such as an article or materials) to a different state or thing. The claimed process steps are not tied to another statutory class and do not transform underlying subject matter. Thus, to qualify as a 35 U.S.C. § 101 statutory process, the claims should positively recite the other statutory class (apparatus or thing) to which it is tied, for example by identifying the apparatus that accomplishes the method steps. See

http://www.uspto.gov/web/offices/pac/dapp/opla/documents/bilski_guidance_memo.pdf

11. Claims 1-9 and 11-22 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. MPEP 2106 IV C 2 requires that a claimed invention "(A) 'transforms' an article or physical object to a different state or thing; or (B) otherwise produces a useful, concrete and tangible result, based on the factors discussed below." Applicant's invention does not transform an article or physical object to a different state or thing. Further, Applicant's invention does not appear to produce a tangible result in that it does not appear to produce a real world (output) result. Instead, Applicant's invention as claimed performs calculations/signal processing without producing a result that is available to the user.

Response to Arguments

12. Applicant's arguments with respect to claims 1-9 and 11-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY M. LLOYD whose telephone number is (571)272-2951. The examiner can normally be reached on Monday through Friday 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571-272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Emily M Lloyd
Examiner
Art Unit 3736

/EML/

/Max Hindenburg/
Supervisory Patent Examiner, Art Unit 3736